REQUEST AND RECOMMENDATION

ONE YEAR OPTION
900+ Clock Hour Programs - Plumbing

Background:

To provide another option for adult students to apply prior learning toward a degree, Ohio legislators established what has come to be known as the One-Year-Option through Section 363.120 House Bill 59 of the 130th General Assembly. The Chancellor of the Ohio Department of Higher Education, in consultation with the Superintendent of Public Instruction and the Governor's Office of Workforce Transformation, was tasked to establish a One-Year Option credit articulation system in which graduates of Ohio's adult career-technical institutions who complete a 900-hour program of study AND obtain an industry-recognized credential approved by the Chancellor will be able to receive 30 technical semester credit hours toward a technical degree upon enrollment in a public institution of higher education. The Chancellor was also to recommend a process to award proportional semester credit hours for adult career-technical institution students who complete a program of study between 600 and 899 hours AND obtain an industry-recognized credential approved by the Chancellor. The Chancellor convened a broad group of stakeholders to develop a system of articulation for the One Year Option that was presented in a report to the legislature called, *"Getting to 30: Establishing a One Year Option Credit Articulation System for Ohio."*

In order to implement the system of articulation developed with the stakeholders as well as address accreditation requirements for degree granting institutions, the Chancellor convened Credit Affirmation Teams (CATs) to conduct a peer review of programs and certifications for affirmation for a block of 30 semester hours of technical credit. The CATs were comprised of faculty and administrators from Ohio Technical Centers (OTCs) and an equal number from public degree granting colleges and universities in Ohio. The CATs were organized by four discipline clusters: Health and Allied Health, Building and Industrial Technology, Business and Information Technology, and Services. They were charged with reviewing the certifications and, if necessary, program content, to affirm that students completing the selected program at an Ohio Technical Center and earned approved certifications had demonstrated competencies equivalent to 30 semester hours of technical credit. This technical credit would then be granted, as a block, upon enrollment in a degree granting institution. Additional subject matter experts were consulted when core team members did not have sufficient content knowledge of the program being reviewed.

Recommendation

As detailed in the attached template, the Building and Industrial Technology Credit Affirmation Team recommends that students will be eligible for a block of 30 semester hours of technical credit towards an *Associate of Technical Studies in Building and Industrial Technology* when:

- the student has successfully completed a 900+ clock hour program in Plumbing at an Ohio Technical Center.

And currently holds **ALL** of the following credentials:

- National Center for Construction Education (NCCER) Core
- National Center for Construction Education (NCCER) Plumbing Level 1
- National Center for Construction Education (NCCER) Plumbing Level 2
- National Center for Construction Education (NCCER) Plumbing Level 3
- Occupational Safety and Health Administration (OSHA) 10 – General Industry or Construction

Please note these certifications must be current and valid. Student must have completed the Ohio Technical Center program within 5 years.

End of Comment Period: July 17, 2015 at 2:45 pm
No comments received, recommend approval

RECOMMENDATION

The Vice Chancellor of Academic Affairs has verified that this pathway has met the standards and requirements of the Ohio Board of Regents.

SDavidson   7/22/15

Stephanie Davidson, Vice Chancellor of Academic Affairs   **Date**

APPROVAL

JR Carey   7/30/15

John Carey, Chancellor   **Date**

The Program Affirmation is designed to provide a common matrix for a peer review process acceptable to the Higher Learning Commission to soundly affirm award 30 semester hours of technical credit for Ohio Technical Center graduates who are eligible for the One Year Option. The template should be completed for every program/subject and signed by the co-chairs of each of the four-cluster program areas for every Industry-recognized credential and program reviewed.

Please note: All Ohio Technical Centers must be accredited by one of the following: [Council on Occupational Education (COE)](#) and/or [Accrediting Commission of Career Schools and Colleges (ACCSC)](#).

Program Name: Plumbing Technology/ Plumber CIP Code: 46.0503	**Cluster** ☐ Business & Information Technologies ☐ Health/Allied Health ☑ Industrial Trades ☐ Service Industries & Agriculture	
CIP CODE DEFINITION		
A program that prepares individuals to practice as licensed plumbers by applying technical knowledge and skills to lay out, assemble, install, and maintain piping fixtures and systems for steam, natural gas, oil, hot water, heating, cooling, drainage, lubricating, sprinkling, and industrial processing systems in home and business environments. Includes instruction in source determination, water distribution, water removal, pressure adjustment, basic physics, technical mathematics, blueprint reading, pipe installation, pumps, welding and soldering, plumbing inspection, and applicable codes and standards.		
STEP ONE: CREDENTIAL REVIEW		
	Details/Explanation	**Comments**
Primary Industry Credential (if there are competing certifications complete page multiple times)	**Name:** The National Center for Construction Education and Research (NCCER) Certifications **Type:** ☐ License ☐ Registry ☑ Certification	**Certifications:** • NCCER Core • NCCER Plumbing Level 1 • NCCER Plumbing Level 2 • NCCER Plumbing Level 3
Program requirements by credentialing body.	The program must be a NCCER Accredited Training Sponsor (ATS) and a NCCER Accredited Assessment Center. "Entities that have been approved by NCCER as having the resources to effectively conduct a quality training program that utilizes NCCER curriculum are designated as an ATS. Entities that have been approved by NCCER as having the resources to effectively conduct a quality assessment program that utilizes the National Craft Assessment and Certification Program (NCACP)	**About the Exams:** NCCER offers a complete series of entry- and journey-level written assessments as part of its National Craft Assessment and Certification Program (NCACP). These assessments evaluate the knowledge of an individual in a specific craft area and provide a prescription for upgrade training when needed. All assessments are based upon the NCCER

	assessments and performance verifications are designated as an NCCER Accredited Assessment Center. NCCER's accreditation process assures that students and craft professionals receive quality training based on uniform standards and criteria. Training Sponsors and Assessment Centers are subject to audit on a three year cycle." For more information, please see: http://www.nccer.org/assessments-performance-verifications?mID=616	Curriculum and have been developed in conjunction with Subject Matter Experts from the industry and Prov™, NCCER's test development partner. Module assessments consist of knowledge verification via the successful completion of a written assessment. In addition to the knowledge verification, some modules also require successful completion of a practical performance in the laboratory setting. **Renewal:** NCCER does not have a renewal option. **Exam Integrity:** NCCER, through their testing partner Prov, administers training module exams through a secure web-based platform, the Testing Management System. Module tests are created, launched, scored and electronically stored. Instructors and proctors are certified to NCCER requirements.
Hour Requirements (includes any instructional, lab/practice hours, or internship hours).	NCCER Core required instructional hours: 72.5 NCCER Plumbing 1 required instructional hours: 122.5 NCCER Plumbing 2 required instructional hours: 160 NCCER Plumbing 3 required instructional hours: 145 All competencies must be covered. Remaining 400 hours may vary per program based on local advisory business/industry committees.	500 clock hours of instruction to complete NCCER Curriculum requirements.
Competencies demonstrated by credential attainment.	NCCER Core Competencies: • Module 00101-09: Basic Safety • Module 00102-09: Introduction to Construction Math • Module 00103-09: Introduction to Hand Tools • Module 00104-09: Introduction to Power Tools • Module 00105-09: Introduction to Construction Drawings • Module 00106-09: Basic Rigging (Elective) • Module 00107-09: Basic Communication Skills • Module 00108-09: Basic Employability Skills	Each equipment specific module typically contains operation, controls, maintenance, and safety guidelines. NCCER Core http://www.nccer.org/uploads/fileLibrary/Core_2009_courseplanning816201351231PM63.pdf NCCER Plumbing Level 1

- Module 00109-09: Introduction to Materials Handing

NCCER Plumbing Level 1 Competencies:

- Module 02101-05: Introduction to the Plumbing Profession
- Module 02102-05: Plumbing Safety
- Module 02103-05: Plumbing Tools
- Module 02104-05: Introduction to Plumbing Math
- Module 02105-05: Introduction to Plumbing Drawings
- Module 02106-05: Plastic Pipe and Fittings
- Module 02107-05: Copper Pipe and Fittings
- Module 02108-05: Cast-Iron Pipe and Fittings
- Module 02109-05: Steel Pipe and Fittings
- Module 02110-05: Corrugated Stainless Steel Tubing
- Module 02111-05: Introduction to Plumbing Fixtures
- Module 02112-05: Introduction to DWV Systems
- Module 02113-05: Introduction to Water Distribution Systems

NCCER Plumbing Level 2 Competencies

- Module 02201-05: Plumbing Math 2
- Module 02202-05: Reading Commercial Drawings
- Module 02203-05: Structural Penetrations, Insulating, and Fire stopping
- Module 02204-05: Installing and Testing DWV Piping
- Module 02205-05: Installing Roof, Floor, and Area Drains
- Module 02206-05: Types of Valves
- Module 02207-05: Installing and Testing Water Supplies
- Module 02208-05: Basic Electricity
- Module 02209-05: Installing Water Heaters
- Module 02210-05: Fuel Gas Systems
- Module 02211-05: Servicing of Fixtures, Valves, and Appliances

NCCER Plumbing Level 3 Competencies

- Module 02301-05: Applied Math
- Module 02302-05: Sizing and Protecting the Water Supply System

http://www.nccer.org/uploads/fileLibrary/Plumbing_L1_2012_courseplanning.pdf

NCCER Plumbing Level 2
http://www.nccer.org/uploads/fileLibrary/Plumbing_L2_CEPs.pdf

NCCER Plumbing Level 3
http://www.nccer.org/uploads/fileLibrary/Plumbing_L3_2006_courseplanning.pdf

	• Module 02303-05: Sizing Water Supply Piping • Module 02304-05: Potable Water Supply Treatment • Module 02305-05: Backflow Prevention • Module 02306-05: Types of Venting • Module 02307-05: Sizing DWV and Storm Systems • Module 02308-05: Sewage Pumps and Sump Pumps • Module 02309-05: Corrosive Resistant Waste • Module 02310-05: Compressed Air • Module 02311-05: Service Plumbing	
Rationale:	The Trades and Industry Credit Affirmation Team (CAT) utilized the following process to complete the assessment regarding the number of semester hours that would be awarded as a block of credit at the college level as block credit based on industry credentials plus 900-clock hours earned at an Ohio Technical Center (OTC). • Research the competencies tested by the industry credential(s). The Trades and Industry CAT reviewed information about the industry credential to determine the competencies signaled by earning the credential(s). • Complete a nationwide internet search to review how other accredited colleges and universities are applying credit to NCCER Core and Plumbing Certifications as a point of comparison. Pima Community College awards 27.75 college credits towards an Associated of Applied Science degree in Business and Industry Technology to students of NCCER's accredited sponsors who successfully complete NCCER Core and Plumbing Levels 1- 3 standardized craft training modules and the Pima-approved challenge exam for those modules. • Review the value of local program advisory committee recommendations to meet the local industry needs. The Team concurred that there was value in having lab/practical, internships and/or externships as part of the program to meet local industry/business needs. • Review OSHA 10-Hour Hazard Recognition Training for the General Industry and Construction. Both OSHA 10 General Industry and Construction includes content essential to general-related work such as fall protection, personal protective equipment, fire prevention and safety, OSHA inspection procedures and more. Furthermore the Trades and Industry CAT believes that the local program advisory committee should decide whether OSHA 10 – General Industry or OHSA 10 Construction are more appropriate to meet local industry needs. The Trades and Industry Credit Affirmation Team confirms: • The certifications exams are valid, reliable and peer-reviewed on a regular basis to ensure the content accurately measures intended competencies. • The competencies measured by the NCCER Core, Plumbing Levels 1-3 and OSHA 10 certifications are developed by industry and reflect industry standards.	

The Trades and Industry Credit Affirmation Team also considered competencies signaled by lab and practical learning experiences. As part of the program offered by OTCs, student will participate in lab/practical experience as recommended by the local program advisory committee to meet local business and industry needs. The lab/practical experiences will reinforce the instructional competencies through hands-on learning.

Upon successful completion of the 900+ hour program in the field of plumbing at an Ohio Technical Center and attainment of the following certifications:
- NCCER Core
- NCCER Plumbing Level 1
- NCCER Plumbing Level 2
- NCCER Plumbing Level 3
- OSHA 10 General Industry or Construction

A student shall be awarded 30 technical semester hours towards completion of an Association of Technical Studies at a public degree granting college or university.

ONLY IF NECESSARY TO AFFIRM 30 CREDITS----STEP TWO: PROGRAM-RELATED COMPETENCIES OBTAINED OUTSIDE OF PRIMARY CREDENTIAL

	Details/Explanation	Comments
Additional related complementary credential(s) or badge(s) (e.g. OSHA 10, CPR).	OSHA 10 General Industry or Construction	The choice between OSHA General Industry and Construction is a local decision based on local industry needs.
Competencies demonstrated by additional credential attainment.	**OSHA 10 – General Industry** Mandatory - 7 hours of training - Introduction to OSHA - Walking and Working Surfaces, including fall protection - Exit Routes, Emergency Action Plans, Fire Prevention Plans, and Fire Protection - Electrical - Personal Protective Equipment - Hazard Communication Elective - 2 hours of Training Must present at least two hours of training on the following topics. At least two topics must be presented. The minimum length of any	Must be taught by a Certified OSHA Outreach Trainer. https://www.osha.gov/dte/outreach/program_requirements.pdf OSHA safety training compliance standards are for the jobsite and individuals receive a wallet card and certificate. OSHA 10 can only be taught by an OSHA Outreach Trainer in good standing, who has been approved by OSHA standards and has completed OSHA Train-the Train course work.

topic is one-half hour.
- Hazardous Materials
- Materials Handling
- Machine Guarding
- Introduction to Industrial Hygiene
- Bloodborne Pathogens
- Ergonomics
- Safety and Health Program
- Fall Protection

Optional - 1 hour of Training

Teach other general industry hazards or policies and/or expand on the mandatory or elective topics. The minimum length of any topic is one-half hour.

OSHA 10 – Construction
Mandatory - 7 hours of training
- Introduction to OSHA
- Focus Four Hazards (Falls, Electrocution, Struck By, and Caught-in or Between.
- Personal Protective and Lifesaving Equipment
- Health Hazards in Construction

Elective - 2 hours of Training

Must present at least two hours of training on the following topics. At least two topics must be presented. The minimum length of any topic is one-half hour.
- Cranes, Derricks, Hoists, Elevators, & Conveyors
- Excavations
- Materials Handling, Storage, Use and Disposal
- Scaffolds
- Stairways and Ladders
- Tools- Hand and Power

Optional - 1 hour of Training.

	Teach other general industry hazards or policies and/or expand on the mandatory or elective topics. The minimum length of any topic is one-half hour.		
Description of additional program elements beyond primary credential.			
Program related competencies/learning outcomes outside of credential(s). Include how competencies are demonstrated.			
Related Programs as of Fall 2015:	**Ohio Technical Center** Great Oaks Institute of Technology	**Program Name** Plumbing	**Clock Hours** 900
Committee Members and Subject Matter Experts:	**Name** Barbara Wagner Kelly Zelesnik Jon Buttelwerth Larraine Kapka Mike Sizemore Tim Conley Jeffrey Jones	**Role** Co-Chair Co-Chair Member Member Member Member Member	**Institution** Upper Valley Career Center Lorain County Community College Cincinnati State Technical and Community College Sinclair Community College Miami Valley Career Technical Center Pickaway Ross Career and Technology Center Ashland County West Holmes Career Center
Other Parameters of Competency.			
OTHER COMMENTS.	Material covered is adequate to allow 30 hours of credit to be granted.		
AFFIRMED NUMBER OF TECHNICAL BLOCK CREDITS	30 semester hours		**LENGTH OF TIME CREDENTIAL CAN BE USED FOR ONE-YEAR OPTION:** Must have completed a 900+ hour program at an Ohio Technical Center and hold all five of the following certifications: 1. NCCER Core

	2. NCCER Plumbing Level 1
	3. NCCER Plumbing Level 2
	4. NCCER Plumbing Level 3
	5. OSHA 10 General Industry or Construction

The certifications must be current and valid. Must have completed the Ohio Technical Center program within 5 years.

Co-chair signatures:

Dr. Barbara G. A. Wagner, Adult Division Director
Upper Valley Career Center – Ohio Technical Center

Kelly A. Zelesnik, Dean of Engineering Technologies
Lorain County Community College

Date: 6/8/2015